

IN THE CLAIMS:

Please cancel Claims 1-17 without prejudice.

Please add the following newly-drafted Claims 21-23.

A2  
1        21. A program conversion apparatus that changes a source program to an object  
2        program for a target processor executing long-word instructions, comprising:

3                  a retrieving unit, for retrieving a pair of instructions from the source program, the  
4        pair of instructions comprising a first instruction denoting a first calculation of two variables  
5        and a second instruction indicating a second calculation, different than the first calculation,  
6        of the same two variables;

7                  a generating unit, for generating a special instruction corresponding to the retrieval  
8        pair of instructions, the special instruction comprising an operation code denoting the first  
9        calculation and the second calculation, and two operands representing the two variables; and

10                 an arranging unit, for arranging the generated special instruction into a long-word  
11        instruction.

1        22. The program conversion apparatus of Claim 21, wherein the first instruction denotes  
2        addition, and the second instruction denotes subtraction.

1        23. The program conversion apparatus of Claim 22, wherein:

2                  the target processor includes a first instruction execution unit having a first  
3        calculation unit, and a second instruction execution unit having a second calculation unit and  
4        a multiplication unit; and

5           the arranging unit retrieves a multiply instruction that does not share dependency  
6       with the special instruction generated by the generating unit, and arranges the special  
7       instruction and the multiply instruction into one long-word instruction.

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